

FIG. 1

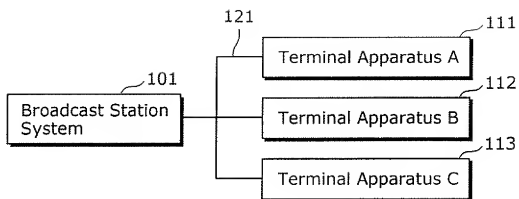


FIG. 2

Frequency Band	Application	Modulation Type
5~130MHz	Out Of Band (OOB) Data exchange between head-end and terminal	QPSK
130~864MHz	In-band Normal television broadcast that includes video/audio	QAM

FIG. 3

Frequency Band	Application
70~74MHz	Sending data from head-end 101 to terminal apparatuses
10.0~10.1MHz	Sending data from terminal apparatus A111 to head-end 101
10.1~10.2MHz	Sending data from terminal apparatus B112 to head-end 101
10.2~10.3MHz	Sending data from terminal apparatus C113 to head-end 101

FIG. 4

Frequency Band	Application
150~156MHz	TV channel 1
156~162MHz	TV channel 2
⋮	⋮
310~311MHz	Radio Channel 1
⋮	⋮

FIG. 5

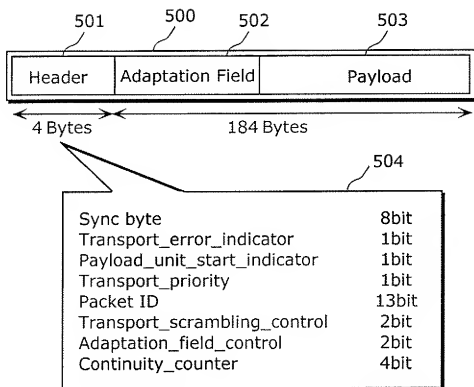


FIG. 6

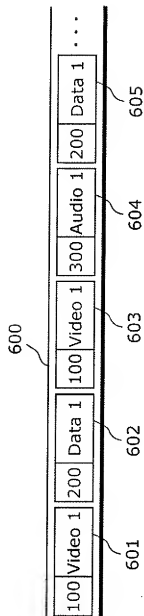


FIG. 7

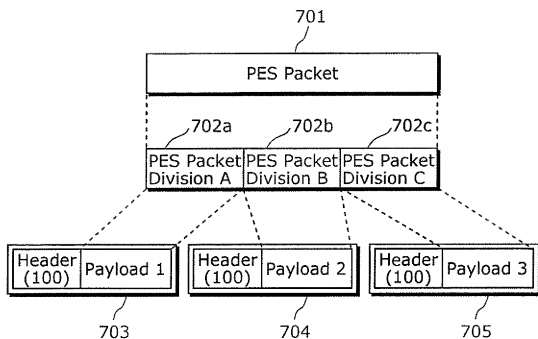


FIG. 8

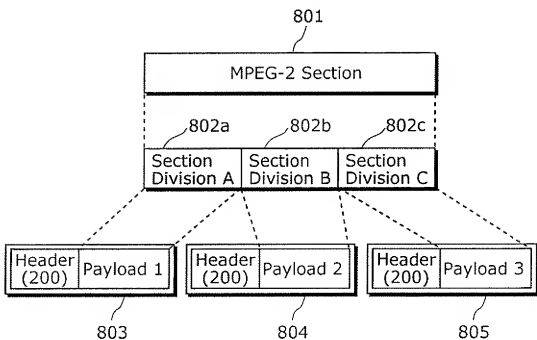


FIG. 9

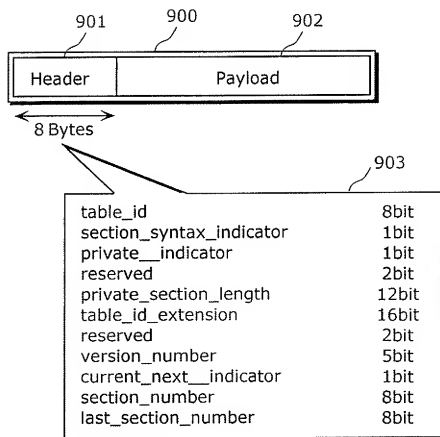


FIG. 10

	1001	1002	1003
	PID	table_id	Details of data sent by MPEG-2 section
1004	16	64	Demodulation information of TS
1005	18	66	Information regarding service
1006	20	95	Information regarding TV show

FIG. 11

Program Number 101				1100
ES	Audio	5011		1111
	Video	5012		1112
	Data	5013	AIT	1113
	Data	5014	DSMCC[1]	1114
	1101	1102	1103	

FIG. 12

transport_stream_id 1000			1200
Program	101	501	1211
	102	502	1212
	103	503	1213
	1201	1202	



FIG. 13

index	Frequency	
1	600 MHz	1311
2	612.5 MHz	1312
3	625 MHz	1313

1301                      1302

FIG. 14

index	Modulation Type	Bitrate	
1	64 QAM	27 Mbps	1411
2	64 QAM	27 Mbps	1412
3	256 QAM	38 Mbps	1413

1401                      1402                      1403

FIG. 15

Source ID	Service Name	
100	Channel 1	1511
200	Channel 2	1512
300	Movie Channel	1513
400	Sports Channel	1514
500	News Channel	1515

1501                      1502

FIG. 16

Source ID	Channel Number	CDS index	MMS index	Program Number	
100	10	1	1	101	1611
200	20	2	2	201	1612
300	30	2	2	301	1613
400	40	3	3	401	1614
500	50	3	3	501	1615

1601      1602      1603      1604      1605

FIG. 17

Source ID	Channel Number	Frequency	Modulation Type	Bitrate	Program Number	Service Name
100	10	600 MHz	64 QAM	27 Mbps	101	Channel 1
200	20	612.5 MHz	64 QAM	27 Mbps	201	Channel 2
300	30	612.5 MHz	64 QAM	27 Mbps	301	Movie Channel
400	40	625 MHz	256 QAM	38 Mbps	401	Sports Channel
500	50	625 MHz	256 QAM	38 Mbps	501	News Channel

1701 1702 1703 1704 1705 1706 1707

1711 1712 1713 1714 1715

FIG. 18

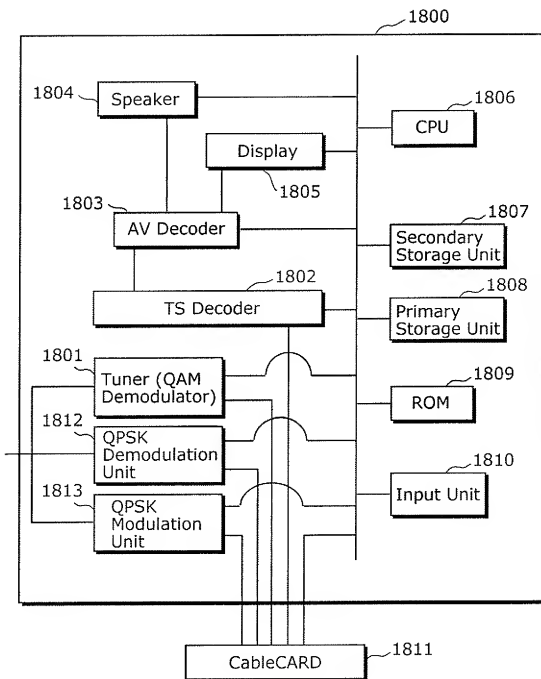


FIG. 19

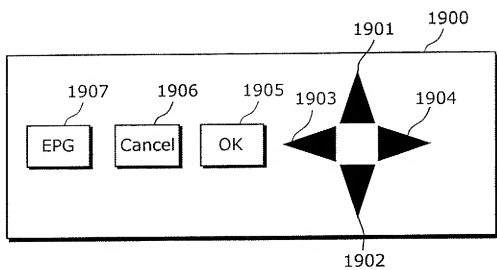


FIG. 20

2000

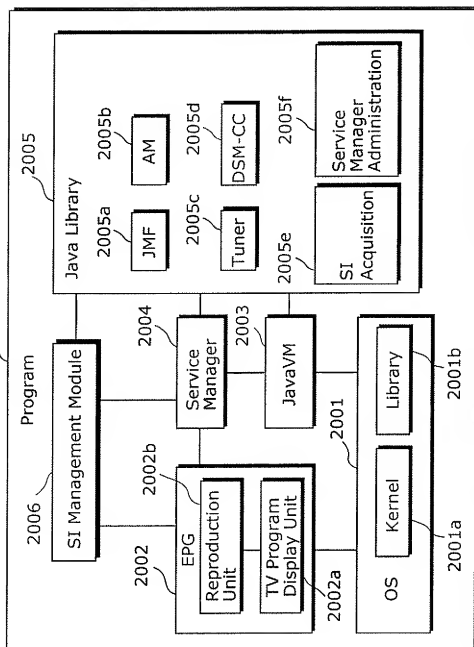


FIG. 21A

2101	2130	2102	2103	1605
Time	Channel 1	Channel 2		
9:00-10:00	News 9	Movie BBB		
10:00-11:00				
11:00-12:00	Movie AAA	News 11		

FIG. 21B

Time	Channel 1	Channel 2
9:00-10:00	News 9	Movie BBB
10:00-11:00		
11:00-12:00	Movie AAA	News 11

FIG. 22A

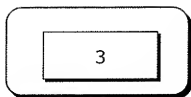


FIG. 22B

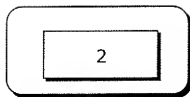


FIG. 22C

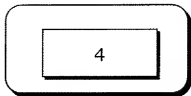




FIG. 23

Java Program Identifier 2301	Control Information 2302	DSMCC Identifier 2303	Program Name 2304
301	autostart	1	/a/TopXlet
302	present	1	/b/GameXlet

FIG. 24

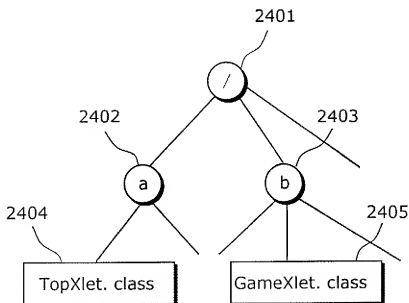


FIG. 25

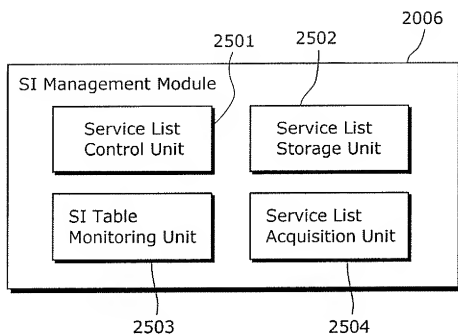


FIG. 26

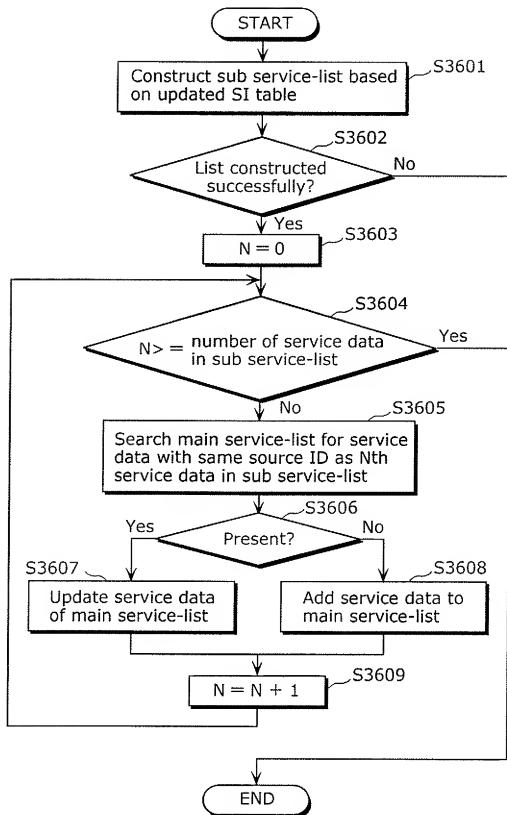


FIG. 27

Source ID	Channel Number	Frequency	Modulation Type	Bitrate	Program Number	Service Name
100	10	600 MHz	64 QAM	27 Mbps	101	Channel 1
200	20	612.5 MHz	64 QAM	27 Mbps	201	Channel 2
300	30	612.5 MHz	64 QAM	27 Mbps	301	Movie Channel
400	40	625 MHz	256 QAM	38 Mbps	401	Sports Channel
600	60	650 MHz	256 QAM	38 Mbps	601	Drama Channel

1701 1702 1703 1704 1705 1706 1707  
 1711 1712 1713 1714 2615

FIG. 28

Source ID	Channel Number	Frequency	Modulation Type	Bitrate	Program Number	Service Name
100	10	600 MHz	64 QAM	27 Mbps	101	Channel 1
200	20	612.5 MHz	64 QAM	27 Mbps	201	Channel 2
300	30	612.5 MHz	64 QAM	27 Mbps	301	Movie Channel
400	40	625 MHz	256 QAM	38 Mbps	401	Sports Channel
700	70	650 MHz	256 QAM	38 Mbps	701	Comedy Channel

1701 1702 1703 1704 1705 1706 1707  
 1711 1712 1713 1714 2715

FIG. 29

Source ID	Channel Number	Frequency	Modulation Type	Bitrate	Program Number	Service Name
100	10	600 MHz	64 QAM	27 Mbps	101	Channel 1
200	20	612.5 MHz	64 QAM	27 Mbps	201	Channel 2
300	30	612.5 MHz	64 QAM	27 Mbps	301	Movie Channel
400	40	625 MHz	256 QAM	38 Mbps	401	Sports Channel
500	50	625 MHz	256 QAM	38 Mbps	501	News Channel
600	60	650 MHz	256 QAM	38 Mbps	601	Drama Channel
700	70	650 MHz	256 QAM	38 Mbps	701	Comedy Channel

1701 1702 1703 1704 1705 1706 1707  
 1711 1712 1713 1714 1715 2615 2715

FIG. 30

Time	Comedy Channel	Channel 1
9:00-10:00	Vaudeville Special	News 9
10:00-11:00		Movie AAA
11:00-12:00	Variety	

FIG. 31

Source ID	Channel Number	Frequency	Modulation Type	Bitrate	Program Number	Service Name
100	10	600 MHz	64 QAM	27 Mbps	101	Channel 1
200	20	612.5 MHz	64 QAM	27 Mbps	201	Channel 2
300	30	612.5 MHz	64 QAM	27 Mbps	301	Movie Channel
400	40	625 MHz	256 QAM	38 Mbps	401	Sports Channel
800	80	650 MHz	256 QAM	38 Mbps	801	Quiz Channel

1701 1702 1703 1704 1705 1706 1707  
 1711 1712 1713 1714 3015



FIG. 32

Source ID	Channel Number	Frequency	Modulation Type	Bitrate	Program Number	Service Name
100	10	600 MHz	64 QAM	27 Mbps	101	Channel 1
200	20	612.5 MHz	64 QAM	27 Mbps	201	Channel 2
300	30	612.5 MHz	64 QAM	27 Mbps	301	Movie Channel
400	40	625 MHz	256 QAM	38 Mbps	401	Sports Channel
500	50	625 MHz	256 QAM	38 Mbps	501	News Channel
600	60	650 MHz	256 QAM	38 Mbps	601	Drama Channel
700	70	650 MHz	256 QAM	38 Mbps	701	Comedy Channel
800	80	650 MHz	256 QAM	38 Mbps	801	Quiz Channel

1701 1702 1703 1704 1705 1706 1707  
 1711 1712 1713 1714 1715 2615 2715 3015

FIG. 33

The diagram shows a program schedule table with three columns and four rows. The first column is labeled 'Time' and contains three time slots: '9:00-10:00', '10:00-11:00', and '11:00-12:00'. The second column is labeled 'Quiz Channel' and contains 'Quiz Variety' and 'Animal Quiz'. The third column is labeled 'Channel 1' and contains 'News 9' and 'Movie AAA'. A fourth row is present but empty. Callouts point to various parts of the table: 2101 points to the top border, 2102 points to the 'Quiz Channel' header, 2130 points to the 'Quiz Variety' cell, 2103 points to the 'Channel 1' header, and 1605 points to the right border.

Time	Quiz Channel	Channel 1
9:00-10:00	Quiz Variety	News 9
10:00-11:00		
11:00-12:00	Animal Quiz	Movie AAA

FIG. 34

Source ID	Channel Number	Frequency	Modulation Type	Bitrate	Program Number	Service Name
100	10	600 MHz	64 QAM	27 Mbps	101	Channel 1
200	20	612.5 MHz	64 QAM	27 Mbps	201	Channel 2
300	30	612.5 MHz	64 QAM	27 Mbps	301	Movie Channel
400	40	625 MHz	256 QAM	38 Mbps	401	Sports Channel
900	90	650 MHz	256 QAM	38 Mbps	901	Chess Channel

1701 1702 1703 1704 1705 1706 1707  
 1711 1712 1713 1714 3315

FIG. 35

Source ID	Channel Number	Frequency	Modulation Type	Bitrate	Program Number	Service Name
100	10	600 MHz	64 QAM	27 Mbps	101	Channel 1
200	20	612.5 MHz	64 QAM	27 Mbps	201	Channel 2
300	30	612.5 MHz	64 QAM	27 Mbps	301	Movie Channel
400	40	625 MHz	256 QAM	38 Mbps	401	Sports Channel
500	50	625 MHz	256 QAM	38 Mbps	501	News Channel
600	60	650 MHz	256 QAM	38 Mbps	601	Drama Channel
700	70	650 MHz	256 QAM	38 Mbps	701	Comedy Channel
800	80	650 MHz	256 QAM	38 Mbps	801	Quiz Channel
900	90	650 MHz	256 QAM	38 Mbps	901	Chess Channel

1701 1702 1703 1704 1705 1706 1707  
 1711 1712 1713 1714 1715 2615 2715 3015 3315

FIG. 36

Time	Chess Channel	Channel 1
9:00-10:00	Chess Championship Live	News 9
10:00-11:00		Movie AAA
11:00-12:00	Chess Quiz	

FIG. 37

Source ID	Channel Number	Frequency	Modulation Type	Bitrate	Program Number	Service Name
100	10	594 MHz	256 QAM	38 Mbps	101	Channel 1
	10	600 MHz	64 QAM	27 Mbps	101	Channel 2
200	20	612.5 MHz	64 QAM	27 Mbps	201	Channel 2
300	30	612.5 MHz	64 QAM	27 Mbps	301	Movie Channel
400	40	625 MHz	256 QAM	38 Mbps	401	Sports Channel
500	50	625 MHz	256 QAM	38 Mbps	501	News Channel

1701 1702 1703 1704 1705 1706 1707  
 3711a 3711b 1712 1713 1714 1715

FIG. 38

